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10/757,833	01/14/2004	Timothy Dale Van Tassel	03-1201-US	5505

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EXAMINER

PAUL, DISLER

ART UNIT

PAPER NUMBER

2615

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/757,833

**Applicant(s)**

VAN TASSEL, TIMOTHY DALE

**Examiner**

DISLER PAUL

**Art Unit**

2615

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 33-42 is/are allowed.
- 6) ☒ Claim(s) 22-25, 27, 29, 31 and 32 is/are rejected.
- 7) ☒ Claim(s) 26, 28 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/808)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Objections***

1. Claim 29 is objected to because of the following informalities: claim 29, is depended on cancelled claim 1. Appropriate correction is required.

For prior art, rejection claim 29, is depended on claim 22.

***Response to Amendment***

The received terminal disclaimer has been approved and thus, overcame the double patent rejection.

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 22-23, 25, 27, 31, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholz et al. (4,489,439) and Pravia (US 3,800,059) and Scholz et al. (4,627,094).

Re claim 22, Scholz et al. disclose an electronic circuit for adding reverberation effects to an audio signal generated from an external high impedance source and passing the reverberated signal at a predetermined impedance for input into an external sound device (fig.1-2; col.6 line 30-35/reverberation created to be added to transducer), said electronic circuit comprising, in combination: a reverberation effects circuit having pre-amplifier /driver(fig.2 (102B,105A)) and recovery amplifier sections (col.2 line 55-60; fig.2 (105B); fig.4), and a reverberation device coupled thereinbetween (fig.2 wt (R138,D; R139)/to create reverberation col.3 line 1-5;\_ said pre-amplifier/driver section having an input for receiving

therethrough a high impedance signal produced from an external audio source (fig.4 (203); col.2 line 47-53/iron support to input signal); and low impedance ad high current output for input into said reverberation device and outputting low impedance signal to said recovery amplifier section for increasing the impedance of the signal to a level acceptable for input into the external device(fig.2,fig.4/circuit for creating acceptable impedance to external transducer; TaBle-1/different impedance for R(136,144)).

But, Scholz et al. fail to disclose of the specific wherein such reverberatin being of the spring reverberation device. But, Pravia disclose of a system wherein such reverberatin being of the spring reverberation device (fig.1 (16); col.5 line 1-7) for the purpose of providing impression of space in a large acoustically reverberant room. Thus, taking the combined teaching of Scholz et al. and now Pravia as a whole, it would have been obvious for one of the ordinary skill in the art to modify Scholz et al. by incorporating such reverberatin being of the spring reverberation device for the purpose of providing impression of space in a large acoustically reverberant room.

But, the combine teaching of Scholz et al. and Pravia as a whole, fail to disclose of the driver amplifier of having an input jack, but official notice is taken the limitation of having an amplifier with an input jack is commonly known in the art, thus it would have been

obvious for one of the ordinary skill in the art to have modified Scholz et al. and Pritchard and as a whole, by incorporating the input jack with the driver amplifier for the purpose of providing a connector socket for inserting such audio signal.

While, the combined teaching of Scholz et al. and Pravias as a whole, disclose of the preamplifier/driver with filtering and DC voltage (fig.2 wt (c18); fig.3-4); But, they fail to disclose of the specific wherein such filter being a DC isolation filter. But, Scholz (094) disclose of the musical sound effect system wherein such specific wherein such filter being a DC isolation filter (fig.1-2 (104); col.7 line 55-60) for purpose of improving tonal quality of the audio signal and having a lower controlled distortion in the signal. thus, taking the combined teaching of Scholz et al. and Pravias and Scholz (094) as a whole, it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Scholz et al. and Pravias as a whole, with the specific wherein such filter being a DC isolation filter for purpose of improving tonal quality of the audio signal and having a lower controlled distortion in the signal.

Re claim 23, the combined teaching of Scholz et al. and Pravias as a whole, disclose of the electronic circuit of claim 22 wherein the spring reverberation device employs many springs with each of said springs having a first spring end and a second spring end and each of

the many first spring ends connected to a single first spring end connecting, and each of the many other second spring ends connected a second spring end connecting (fig.1 wt (16)).

But, the combined teaching of Scholz et al. and Pravia as a whole, fail to disclose of the amount of springs and specifically three springs and connecting to a bar for each spring ends. But, official notice is taken the concept of having such the specifically three springs and connecting to a bar for each spring ends is simply the inventor's preference. Thus, it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Scholz et al. and Pravia as a whole, with the specifically three springs and connecting to a bar for each spring ends for creating room sound effect with the instrument.

Re claim 25, the electronic circuit as set forth in claim 23, wherein said pre-amplifier/driver section comprises first and second operational amplifiers each having inverting and non-inverting inputs and an output, each of said outputs comprising a negative feedback loop coupled to said inverting inputs and shunted to ground for setting a predetermined gain value at said output (fig.2-4(102,105)/op am with feedback and connection to ground).

Re claim 27, the electronic circuit as set forth in claim 25, wherein said negative feedback loop of said first operational amplifier comprises a resistor (fig.2(102),R134) however, the combined teaching of Scholz et al. and Pritchard as a whole, fail to disclose of the specific limitation of the resistor being variable with a 50K linear potentiometer having variable resistive capacity to variably adjust gain of the signal and establish low impedance at said output of said first operational amplifier. However, official notice is taken that the concept of having a feedback with variable resistor is simply the inventor's preference, thus it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Scholz et al. and Pritchard as a whole, for generating adjusted gain signals.

Re claim 31, the electronic circuit as set forth in claim 30, wherein said negative feedback loop of said single operational amplifier comprises a resistor resistive capacity to have the gain and establish a predetermined impedance of the signal at said output suitable for input into the external sound device (fig.2 (R144)), But, the combined teaching of Scholz et al. and Pravias as a whole, fail to disclose of the specific limitation of having the 50K linear potentiometer having variable resistive capacity to variably adjust gain. But, official notice is taken that having the amplifier arranged in such that there is added of a variable resistor in the feedback



loop, is simply the inventor's preference, thus it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Scholz et al. and Pravia as a whole, by incorporating the arrangement of amplifier with a variably resistor for variably adjusting the gain of the signals.

Re claim 29, the electronic circuit as set forth in claim 22, wherein said reverberation device comprises a spring configuration (Pritchard, fig.7(56), fig.8); But, the combined teaching of Scholz et al. and Pritchard as a whole, fail to disclose of the specific limitation wherein the spring configuration comprising a 3-spring configuration operable at an input impedance of 800 ohms and an output impedance of 2575 ohms. However, official notice is taken, that having a manufacture spring being of the specification of a 3-spring configuration operable at an input impedance of 800 ohms and an output impedance of 2575 ohms is the inventor's preference, thus it would have been obvious for one of the ordinary skill in the art, to have modified the combined teaching of Scholz et al. and Pravia as a whole, by replacing the spring with the specific being of a 3-spring configuration operable at an input impedance of 800 ohms and an output impedance of 2575 ohms for generating spring reverberating effect.

5. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scholz et al. ("4,489,439) and Pravia (US 3,800,059) and Scholz et al. (4,627,094) and further in view of Bacon (US 2004/0190727).

Re claim 24, the electronic circuit as set forth in claim 23, However, the combined teaching of Scholz et al. and Pravia as a whole, fail to disclose of the wherein the input comprises a reverberation effects bypass for maintaining the integrity and impedance of the audio signal through said reverberation effect circuit for direct input into the external sound device. However, Bacon disclose of a system wherein He disclose of similar concept of an effect bypass switch for direct input into a sound device (fig.1 (50,56) for obtaining of a better sound reproduction. Thus, taking the combined teaching of Scholz et al. and Pravia and Bacon as a whole, it would have been obvious for one of the ordinary skill in the art to modify Scholz et al. and Pravia and as a whole, by incorporating such a of an effect bypass switch for direct input into a sound device for obtaining of a better sound reproduction

6. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scholz et al. (4,489,439) and Pravia (US 3,800,059) and Scholz et al. (4,627,094) and further in view of Ellis et al. (4,158,813).

Re claim 32, the electronic circuit as set forth in claim 22, wherein said recovery amplifier section comprises an output to external sound device (fig.2 (105B out)). But, the combined teaching of Scholz et al. and Pravia and Scholz (94) as a whole, as a whole, fail to disclose of the auxiliary jack fitted with a switch for clamping a signal to ground to intermittently control the sound. But, Ellis disclose a system wherein the same concept of having a jack fitted with a switch for clamping the signals to ground to intermittently control the signal (fig.2, col.4 line 40-55) for the purpose of determining selecting the operation of the receiver. Thus, taking the combined teaching of Scholz et al. and Pravia and now Ellis et al. as a whole, it would have been obvious for one of the ordinary skill in the art to modify the combined teaching of Scholz et al. and Pravia as a whole, by incorporating the jack fitted with a switch for clamping the signals to ground to intermittently control the signal for the purpose of determining selecting the operation of the receiver.

***Allowable Subject Matter***

7. Claims 33-42 are allowed.
2. Claims 26, 28, 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Re claim 33, none of the prior art of record disclose of the connection between the audio signal and specific input of the operational amplifiers and the impedance and gain level wherein such specific audio signal into an non-inverting input of a first operational amplifier having an inverting input shunted to ground and an output comprising a negative feedback loop coupled to said inverting input for setting a predetermined gain value and impedance at said output prior to being coupled to a non-inverting input of a second operational amplifier having an inverting input shunted to ground and a low impedance, high current output for input into a spring reverberation device having an output for passing there through a reverberated signal; passing the audio signal through a DC-Isolation filter and passing the reverberated signal into an inverting input of a single operational amplifier having a non-inverting input shunted to ground and an output having a negative feedback loop coupled to said inverting input for setting a predetermined gain and impedance acceptable for input into the external sound device.

Re claim 38, none of the prior art of record disclose of the specific wherein the first and second operational amplifiers each having inverting and non-inverting inputs and an output, each of said outputs comprising a negative feedback loop coupled to said inverting inputs and shunted to ground, said negative feedback loop of said first operational amplifier comprising a 50K linear potentiometer having

variable resistive capacity to variably adjust gain of the signal and establish low impedance at said output of said first operational amplifier, said negative feedback loop of said second operational amplifier comprising a resistor/capacitor arrangement for stabilizing said feedback loop and restoring phase margin to said second operational amplifier; and a DC Isolation filter interposed between said first and said second operational amplifiers; and a spring reverberation device having an input for accepting a low impedance, high current signal from said output of second operational amplifier and an output for passing therethrough a reverberated signal; and a single operational amplifier having a non-inverting input shunted to ground and an output having a negative feedback loop coupled to said inverting input for setting a predetermined gain and impedance acceptable for input into the external sound device.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. P./  
Examiner, Art Unit 2615

/Vivian Chin/  
Supervisory Patent Examiner, Art Unit 2615